

REMARKS:

Claims 1, 2, 4 and 13-28 were pending in the application. Claims 1, 2, 4, 13, 15, 17-25, 27 and 28 have been amended. Claims 14, 16, and 26 have been canceled. Therefore, claims 1, 2, 4, 13, 15, 17-25, 27 and 28 are now pending in this application.

Examiner Interview

The undersigned conducted a telephone conference with the Examiner on July 28, 2009, regarding the currently pending rejections. Applicant appreciates the Examiner's time and consideration of the pending claims. Applicant's remarks below reflect the substance of the interview.

Specification Objections

Paragraph [0014] is objected to because "it is not known what the applicant means by the terms 'turn credit' and 'traffic class credit' because they are no[t] fields in the header with the above terms." Office Action at 2. As explained in the interview, Applicant submits that embodiments of Applicant's disclosure may be applicable to the PCI express protocol standard. *See* Specification at ¶ [0011]. Applicant further submits that this standard is known to use a "credit-based flow control" in order to ensure that packets are transmitted only when it is known that a buffer is available to receive these packets at the other end. The specification states that the terms "turn credit" and "traffic class credit" do not refer to specific header field names, but rather the "credit type" field of a unicast packet. *See* Specification 4-5 Table 1. Accordingly, "next turn credit" and "traffic class credit," in some embodiments, refer to different types of credit that may be used for flow control within a switching architecture. "Next turn credit" can broadly refer to credit associated with a "next turn" in a path specification, while "traffic class credit" can refer to credit associated with a particular "traffic class" or priority. Applicant therefore respectfully requests removal of this objection.

Paragraph [0024] is objected to because "it is not known what the applicant means by the term 'turn count'." *Id.* Applicant submits that the terms "turn count" and "bit count" are used interchangeably. Applicant has replaced "turn count" with "bit count" in paragraphs [0024],

[0034], and [0050]. The Examiner indicated that such an amendment would overcome this objection.

Claim Objections

Claim 13 is objected to as being a duplicate claim of claim 4. Applicant respectfully disagrees and submits that the claims recite different elements capturing different ranges of scope. For example, claim 4 recites that the “header data is comprised of a credit length, a bit count, an operation, a Path Identifier (PID) index, a Maximum Transmission Unit (MTU) and an Extended Unique Identifier (EUI)” (emphasis added). In contrast, claim 13 recites that the “header data further comprises a bit count” and does not require the other types of information recited in claim 4. As but one non-limiting example, claim 13 might be applicable to embodiments that use header data including a “bit count” but not “an Extended Unique Identifier (EUI)” as recited in claim 4. Accordingly, claim 4 and 13 are clearly not duplicate claims.

Claim 21 is objected to because it lacks antecedent basis for “the packet field data.” Applicant has amended claim 21 to recite “the header,” which has antecedent basis in claim 20.

Claim 25 and 26 is objected to for reciting “usable.” Applicant has amended claim 25 to remove this term. Applicant has canceled claim 26 rendering any objection of this claim moot.

Applicant respectfully requests removal of these claim objections.

Double Patenting

With respect to double patenting issues raised by the Examiner, see Office Action at 3, Applicant respectfully requests that this rejection be held in abeyance until the claims in the identified co-pending application are found to be otherwise in condition for allowance.

Section 112 Rejections

Written Description

Claims 1, 2, 4, and 13-28 are rejected under 35 U.S.C. 112, first paragraph, for reciting a “turn value specifying a second port,” when the specification indicates that “the output port is specified by [a] turn value, input port and the number N and not only the turn value as claimed.” See Office Action at 5. While Applicant disagrees that the identified claims include “new matter,” Applicant has amended claim 1 to recite that “the switch is configured, based on an

identifier for the first port, the first turn value, and the number of the plurality of ports, to transmit the packet on a second of the plurality of ports.” Claims 2, 14, 15, 18, and 20 have been amended in a similar manner. Applicant respectfully requests removal of these rejections.

Omitting Essential Elements

Claims 1, 2, 4 and 13-28 are rejected under 35 U.S.C. 112, second paragraph, as “being incomplete for omitting essential elements, such omission amounting to a gap between the elements.” Office Action at 5. In particular, the Examiner asserts that the identified claims omit the following (allegedly) essential features: 1) “the claimed switch is required to support path routing,” 2) “the transmission of the path-routed packets depend also on the bit count” and 3) “the output port is specified as ‘An output port number = ([input_port_number+turn_value+1] modulo [N.sup2+1]).’” Office Action 5-6. Applicant respectfully disagrees with these rejections.

Applicant submits that in order for matter to be considered essential, it must be “disclosed to be essential to the invention as described in the specification or in other statements of record.” MPEP 2172.01. Applicant submits that the specification does not indicate that the features identified by the Examiner meet this standard.

As to the first feature listed above, the Examiner cites paragraph [0018] of Applicant’s specification, which recites:

All ExAS nodes are required to support path routing. A path specifies the position of the terminus relative to the origin, and is assigned to the ExAS header by the origin of the packet. Nodes are required only to forward the packet according to the path that is contained in the ExAS packet header.

While this passage states that “*ExAs nodes* are required” to support various features, the specification is not limited to the use of “ExAs” (which is tied to the PCI Express standard). *See* Specification ¶ [0011] (referring to “the PCI Express Advanced Switching (PCI ‘ExAS’) architecture” and stating that embodiments of the disclosure “provide[] for an extensible switching fabric framework for encapsulation of virtually any protocol,” including “the PCI Express”). In other words (as Applicant explained to the Examiner), embodiments of the disclosure may be applicable to protocols other than the PCI Express protocol. As such, Applicant submits that, even though the specification uses the term “required” when describing “ExAS nodes,” the specification does not teach or suggest that the features recited in paragraph

[0018] need be present in every possible embodiment. Nevertheless, Applicant has amended several of the claims to incorporate language that is believed to address the Examiner's assertion. For example, claims 1, 2, 15, and 18 recite "path routing information." Claim 20 recites "path routing a packet from a source to a destination."

As to the Examiner's suggestion that the functionality of a "bit count" is omitted from the claims, Applicant notes that nothing in the specification indicates that this particular feature is "essential." Nevertheless, Applicant has amended several of the independent claims to recite a "bit count value" (e.g., claim 1). Applicant notes that claim 20 does not specifically refer to a "bit count value," but multiple ones of its dependents include this feature.

Finally, as to the specific formula recited by the Examiner for specifying the output port, Applicant submits that the specification does not identify this formula as being "essential." In any event, Applicant has amended claim 1 to recite "the switch is configured, based on an identifier for the first port, the first turn value, and the number of the plurality of ports, to transmit the packet on a second of the plurality of ports." Claims 2, 14, 15, 18, and 20 have been amended in a similar manner. During the interview, the Examiner indicated that Applicant did not need to include the details of this formula in the claims.

Indefiniteness

Claims 1, 2, 4, and 13-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite. In particular, the Examiner rejected claims 1, 2, 14, 15, 18, and 20 for reciting "that the turn value specifies the second port then transmitting the packet based on [the] turn value/header and number of ports." As noted above, claim 1 now recites that "the switch is configured, based on an identifier for the first port, the first turn value, and the number of the plurality of ports, to transmit the packet on a second of the plurality of ports." Claims 2, 15, 18, and 20 have been amended in a similar manner. Such amendments are believed to address the Examiner's concerns. Applicant has also canceled claims 14 and 16, rendering any rejection of these claims moot.

CONCLUSION:

Applicant respectfully submits the application is in condition for allowance, and an early notice to that effect is requested.

Applicant has petitioned herewith for what is believed to be the appropriate extension of time. If any further extensions are necessary to prevent the above-referenced application from becoming abandoned, Applicant hereby petitions for such extension.

The Commissioner is authorized to charge any fees that may be required, or credit any overpayment, to Meyertons, Hood, Kivlin, Kowert & Goetzel, P.C. Deposit Account No. 501505/6257-14502/DMM.

Also filed herewith are the following items:

- ☒ Information Disclosure Statement
- ☒ Petition for Extension of Time

Respectfully submitted,

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